Reply dated March 15, 2004

Reply to Office Action dated December 19, 2003

## **Listing of Claims:**

1. (Currently Amended) An injecting and sealing apparatus of a liquid crystal display device comprising:

an elevator for conveying a liquid crystal display panel having a liquid crystal injection hole from the injecting apparatus to the sealing apparatus;

a residual liquid crystal remover for removing contaminated liquid crystal at a periphery of the liquid crystal injection hole, the residual liquid crystal remover having a liquid crystal removing unit for removing the contaminated liquid crystal and a vacuum line for evacuating the contaminated liquid crystal;

a sealer for sealing the liquid crystal injection hole with a sealant; and an ultraviolet irradiating unit for hardening the sealant.

- 2. (Previously Presented) The apparatus of claim 1, further comprising at least one buffer for temporarily storing the liquid crystal display panel conveyed between the injecting apparatus and the sealing apparatus.
- 3. (Previously Presented) The apparatus of claim 1, further comprising a seal-confirming unit for confirming a seal state of the liquid crystal display panel.
- 4. (Previously Presented) The apparatus of claim 1, wherein the injecting apparatus includes:
  - a loader for loading the liquid crystal display panel;
  - a pre-heater for heating the liquid crystal display panel;
- a vacuum unit for causing an interior of the liquid crystal display panel to be in a vacuum state; and

an injector for injecting liquid crystal into the liquid crystal display panel.

5. (Previously Presented) The apparatus of claim 4, wherein the pre-heater includes: a first pre-heater for activating contaminants of the liquid crystal; and a second pre-heater for heating the liquid crystal display panel.

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6. (Previously Presented) The apparatus of claim 4, wherein the injector includes;

a first injector for placing the liquid crystal display panel in an atmospheric state;

a second injector for injecting liquid crystal into the liquid crystal display panel.

Claim 7 (Canceled).

8. (Currently Amended) The apparatus of claim [[7]] 1, wherein the vacuum line is provided at a rear side of the liquid crystal removing unit.

9. (Previously Presented) The apparatus of claim 1, wherein the sealer includes:

a roller for sealing the liquid crystal injection hole;

a sealant box filled with a sealant; and

a leveler for maintaining a thickness of the sealant.

10. (Previously Presented) A method of injecting and sealing a liquid crystal display panel comprising:

conveying a plurality of liquid crystal display panels each having a liquid crystal injection hole from an injecting apparatus to a sealing apparatus;

removing contaminated liquid crystal at a periphery of each liquid crystal injection hole;

sealing the liquid crystal injection holes of the liquid crystal display panels with a sealant using a roller; and

hardening the sealant by irradiating a ultraviolet ray.

- 11. (Original) The method of claim 10, wherein said sealing includes sealing the injection holes in a downward state.
- 12. (Previously Presented) The method of claim 10, wherein the injecting apparatus includes:

a loader for loading the liquid crystal display panels;

a pre-heater for heating the liquid crystal display panels;

a vacuum unit for causing an interior of the liquid crystal display panel to be in a

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vacuum state; and

an injector for injecting liquid crystal into the liquid crystal display panels.

13. (Previously Presented) The method of claim 10, further comprising, prior to the sealing, temporarily storing the liquid crystal display panels between the injecting apparatus and the sealing apparatus.

- 14. (Currently Amended) The method of claim [13] 10, wherein the contaminated liquid crystal is removed by an N2 blow system.
- 15. (Currently Amended) The method of claim [13] 10, wherein the contaminated liquid crystal is removed by a vacuum system.
- 16. (Original) The method of claim 10, wherein said hardening includes irradiating an ultraviolet ray by a lamp scanning system.
- 17. (Original) The method of claim 16, wherein the liquid crystal injection holes collectively harden by the lamp scanning system.
- 18. (New) An in-line injecting and sealing apparatus of a liquid crystal display device comprising:

an elevator conveying a liquid crystal display panel having a liquid crystal injection hole from the injecting apparatus to the sealing apparatus;

a residual liquid crystal remover removing contaminated liquid crystal at a periphery of the liquid crystal injection hole;

a sealer sealing the liquid crystal injection hole with a sealant; and an ultraviolet irradiating unit hardening the sealant.

- 19. (New) The apparatus of claim 18, further comprising at least one buffer temporarily storing the liquid crystal display panel conveyed between the injecting apparatus and the sealing apparatus.
  - 20. (New) The apparatus of claim 18, further comprising a seal-confirming unit

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confirming a seal state of the liquid crystal display panel.

21. (New) The apparatus of claim 18, wherein the injecting apparatus includes:

- a loader loading the liquid crystal display panel;
- a pre-heater heating the liquid crystal display panel;
- a vacuum unit causing an interior of the liquid crystal display panel to be in a vacuum state; and

an injector injecting liquid crystal into the liquid crystal display panel.

- 22. (New) The apparatus of claim 21, wherein the pre-heater includes:
  - a first pre-heater activating contaminants of the liquid crystal; and
  - a second pre-heater heating the liquid crystal display panel.
- 23. (New) The apparatus of claim 21, wherein the injector includes;
  - a first injector placing the liquid crystal display panel in an atmospheric state; and
  - a second injector injecting liquid crystal into the liquid crystal display panel.
- 24. (New) The apparatus of claim 18, wherein the residual liquid crystal remover includes:
  - a liquid crystal removing unit removing the contaminated liquid crystal; and
  - a vacuum line evacuating the contaminated liquid crystal.
- 25. (New) The apparatus of claim 24, wherein the vacuum line is provided at a rear side of the liquid crystal removing unit.
  - 26. (New) The apparatus of claim 18, wherein the sealer includes:
    - a roller sealing the liquid crystal injection hole;
    - a sealant box filled with a sealant; and
    - a leveler maintaining a thickness of the sealant.